WHAT IS CLAIMED IS:

1. A method of correcting the refractive error in a cornea of an eye, comprising

separating a layer of the cornea to form first and second internal surfaces, said first surface facing in a posterior direction and said second surface facing in an anterior direction, and

ablating an intracorneal lens, and

controlling a robot to insert an intracorneal blank proximate to at least one of said first and second internal surfaces.

2. A method according to claim 1, wherein

the separating step includes separating said layer from a remaining portion of the cornea at first and second surfaces to form a flap.

3. A method according to claim 2, further comprising the steps of

moving said flap to expose said second surface.

4. A method according to claim 3, wherein

said inserting step includes placing said ablated intracorneal blank on said second surface.

5. A method according to claim 1, wherein

said intracorneal blank has a central axis and a centering mark at said central axis, and

said inserting step includes aligning said centering mark of said intracorneal blank with the main optical axis of the eye.

6. A method according to claim 5, further comprising the step of

marking the second surface of the cornea at the main optical axis of the eye.

7. A method according to claim 2, further comprising the step of

smoothing the flap with a compression device.

8. A method according to claim 1, further comprising the step of

positioning a therapeutic contact on the external surface of the eye.

9. A method of correcting the refractive error in a cornea of an eye, comprising

controlling a first automated device to aim an ultrashort pulse laser at the cornea of the eye,

firing the ultrashort pulse laser at the cornea of the eye, forming a flap thereon,

moving the flap to expose first and second internal corneal surfaces,

controlling a second automated device positioning an intracorneal lens on the second internal corneal surface,

aiming an excimer laser at the intracorneal implant using a third automated device,

firing the excimer at the intracorneal implant, ablating a portion thereof,

replacing the flap over the intracorneal lens,

compressing the exterior surface of the cornea, and

applying a contact to the exterior surface of the eye to protect the flap.

10. A method according to claim 9, wherein

the steps of aiming and firing an ultrashort pulse laser include aiming and firing an ultrashort pulse laser selected from the group consisting of a femtosecond laser, a picosecond laser and an attosecond laser.

11. A method according to claim 10, wherein

the placing step includes placing the intracorneal implant on the second internal corneal surface using a plunger.

12. A method according to claim 9, wherein

the placing step includes placing the intracorneal lens on the second internal corneal surface using a dispensing device coupled to said second automated device.

13. A method according to claim 9, further includes the step of

marking the second internal corneal surface at the main optical axis of the eye.

14. A method according to claim 13, wherein

said intracorneal lens has a mark at a central axis thereof, and

said positioning step includes aligning said intracorneal lens with the mark on the second internal corneal surface at the main optical axis.

15. A system for correcting the refractive error in a cornea of an eye of a patient, the cornea having an external surface and the eye having a main optical axis, comprising:

a first robotic arm adapted to be positioned relative said cornea;

an ultrashort pulse laser coupled to said first robotic arm and adapted to separate a layer of the cornea into first and second internal surfaces;

a second robotic arm adapted to be positioned relative said cornea;

a lens dispensing device coupled to said second robotic arm and adapted to position a lens on the second internal surface of the cornea;

a third robotic arm adapted to be positioned relative to said cornea; and

a second laser coupled to the third robotic arm and adapted to ablate a portion of said lens.

16. A system according to claim 15, wherein

said second internal surface is marked at the main optical axis of the eye.

17. A system according to claim 16, wherein

said lens has a central axis and said lens is marked at said central axis, and when said lens is positioned on the external surface of the eye said mark on said lens is aligned with said mark on said external surface of said cornea.

18. A system according to claim 15, wherein

said lens dispensing device is a plunger adapted to hold at two lenses.

19. A system according to claim 15, wherein

said ultrashort pulse laser is selected from the group consisting of a femtosecond laser, a picosecond laser and an attosecond laser.

20. A system according to claim 15, wherein

said second laser is an excimer laser.

21. A system according to claim 15, further comprising

a device for compressing the exterior surface of the eye.

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